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Personality Traits in Patients with Panic Disorder According to the Presence of Agoraphobia

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Abstract

Background: Personality characteristics, health status, clinical course and prognosis of patients with panic disorder affect pharmacological and psychological treatment of these patients. The purpose of this study was to study personality patterns of patients with panic disorder (PD) by grouping them according to an important condition, that is, agoraphobia.
Objectives: As little data exists in the filed of personality profiles and it's potential impact on the course of panic disorder, we conducted the study in an Iranian population in Tabriz city during 2015 - 2016.
Methods: A total of 120 patients with panic disorder were selected and evaluated using psychiatric interviews, as well as NEO Five-Factor Inventory and Millon Clinical Multiaxial Inventory-III (MCMI).
Results: From 96 patients who completed the study, 10.42% were diagnosed to have panic disorder with agoraphobia. The mean age of the patients was 35.12 ± 9.50 years old. The most common comorbid psychiatric condition was major depressive disorder in both groups of with and without agoraphobia. None of the patients exceeded from the cutoff point described for MCMI. Patients with agoraphobia scored higher in borderline personality, anxiety, and post-traumatic stress scales. Patients without agoraphobia had higher scores for narcissistic personality. There was no significant difference in scores of NEO-FFI with regard to the presence of agoraphobia, and all the patients scored high in agreeableness and conscientiousness.
Conclusions: Despite comparable scores of NEO between PD patients with and without agoraphobia, they scored significantly different in MCMI for borderline and narcissistic personalities, anxiety, and post-traumatic stress disorder.

Keywords: Panic Disorder, Agoraphobia, Personality Profiles, Comorbidity

1. Background

Fifth edition of the diagnostic and statistical manual of mental disorders (DSM 5) defines panic disorder (PD) as recurrent unexpected panic attacks, at least one of which is related to persistent concern about repeating the attacks, consequences, or anticipated behavioral changes (1). Clinical features and functional disturbance of the disorder vary significantly among patients.

Comorbidity with other major psychiatric conditions such as major depression disorder (MDD; in 32.50%), substance use disorders (36%), post-traumatic stress disorder (PTSD; 21.6%), and general anxiety disorder (GAD, 21.3%) is very common in patients with PD (1-3). A similar pattern is observed with personality disorders (35% - 40.8%). Personality disorders and traits play a significant role in predisposing individuals to psychiatric disorders. Studies introduce borderline personality disorder and dependent personality disorder (22.7%) to be the most common comorbid personality disorders with PD, which also cause more severe symptoms and poorer treatment outcomes (4), as personality disorders or traits can influence both medical treatment and psychotherapy outcomes.

Although diagnostic criteria have been helpful in management of PD, several studies have strived to identify other characteristics to explain differences between patients in terms of clinical features, course of treatment, and response to treatment. Personality characteristics, which according to different personality theories, influence emotional and behavioral patterns, have been interesting potential issues, which could yield a better explanation regarding the etiology of PD and guide us toward a more comprehensive treatment plan. However, there have not been any conclusive results in this regard to date. Accordingly, this study aimed to estimate personality charac-

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teristics of patients with PD considering an important condition that has not been studied much, that is, agoraphobia. Moreover, a record of psychiatric comorbidities and two different standard personality inventories were used to perform a comprehensive evaluation.

2. Objectives

As little data exists in the filed of personality profiles and it's potential impact on the course of panic disorder, we conducted the study in an Iranian population in Tabriz city during 2015 - 2016.

3. Materials and Methods

The present study was conducted in psychiatry clinic of Tabriz University of Medical Sciences, North West of Iran, from 2015 to the end of 2016 (two years). The study was approved by the regional ethics committee (code: 139521546) and written informed consent was obtained from the participants.

3.1. Procedure

This cross-sectional study included patients aged above 18 years, who were diagnosed with PD (with or without agoraphobia) according to DSM5 diagnostic criteria. The exclusion criteria were substance use disorder (except for nicotine), history of severe head trauma, signs or symptoms of psychosis, and intellectual disability. Patients were also excluded if the Millon Clinical Multiaxial Inventory (MCMI) showed the test protocol as invalid. Thorough psychiatric interviews and physical examinations were performed for all the patients. Paraclinical investigations or consultations were also conducted where needed and comorbid disorders were recorded for all of the patients. Sample size was estimated according to the prevalence of PD (4.7%) to be a minimum of 68 patients.

3.2. Measures

NEO Five-Factor Inventory (NEO FFI) is a 60-item questionnaire rated on a five-point scale to yield scores in five major domains of personality; it usually requires 10 to 15 minutes to complete. These domains are openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The Persian version of the NEO has been previously used by other studies in Iranian population (5).

Millon Clinical Multiaxial Inventory (MCMI-III) psychological assessment tool is intended to provide information on personality traits and psychopathology in clinical population (6). MCMI-III includes 14 personality scales, 10 clinical syndrome scales, and 5 correction scales.

3.3. Statistical Analysis

Data were analyzed by using SPSS, version 23. Frequency distributions were expressed as mean, percentage, and standard deviation. Independent *t*-test, Fisher's exact test, and Pearson's correlation coefficient were used when appropriate. P value less than 0.05 was considered significant.

4. Results

A total of 120 patients with PD (with and without agoraphobia) were enrolled in the study. Overall, 107 patients completed the questionnaire, and 11 patients were excluded because of invalid MCMI-III as described before. Thus, data from 96 patients were analyzed (Table 1).

The most common comorbid psychiatric condition was major depressive disorder (MDD) in both groups. Table 2 shows the comorbidities in the study population. There was no significant difference in this regard between the two groups, except for simple phobia, which was more common in patients with agoraphobia (P = 0.003).

All the patients were evaluated by NEO-FFI. PD patients scored high in agreeableness and conscientiousness. This pattern was not related to the presence of agoraphobia, and the two groups had comparable scores in all domains as described in Table 3.

Table 4 presents the mean scores of MCMI-III indices in the two groups. According to these results, scores of PD patients with or without agoraphobia did not exceed the cut-off point, except for disclosure index.

However, patients with agoraphobia scored higher in borderline personality, anxiety, and post traumatic stress scales. Patients without agoraphobia had higher scores for narcissistic personality (Table 4).

5. Discussion

This study evaluated a clinical sample of Iranian patients with PD for their personality profile and compared them regarding the presence of agoraphobia. This information can be useful not only for a better understanding of the etiology of PD, but also for providing more efficient therapeutic interventions.

There is a growing body of evidence regarding the effect of comorbid disorders on treatment outcomes of PD (7). Treatment of panic disorder might be complicated with the presence of substance use problems and affective or anxiety disorders (4), which is not a rare condition as negative emotions tend to co-exist (8, 9). Results of this study are compatible with previous reports and show that

Table 1. Demographics of Patients Panic with and Without Agoraphobia[a]

	Panic Disorder With Agoraphobia	Panic Disorder Without Agoraphobia	Total
Gender			
Male	2 (20)	25 (29.07)	27 (24.52)
Female	8 (80)	61 (70.93)	69 (75.47)
Educational level			
Under graduated	4 (40)	15 (17.41)	19 (28.72)
Graduate	5 (50)	40 (46.51)	45 (48.26)
Postgraduate	1 (10)	31 (36.04)	32 (23.02)
Marital status			
Single	3 (30)	18 (20.93)	21 (25.47)
Married	7 (70)	68 (79.07)	75 (74.53)
History of treatment	8 (80)	70 (81.40)	78 (80.70)

[a]Values are expressed as No. (%).

Table 2. Comorbidity of Panic Disorder with Other Psychiatric Conditions[a]

	Panic Disorder With Agoraphobia	Panic Disorder Without Agoraphobia	Total
Depression	7 (70)	63 (73.26)	70 (71.63)
Generalized anxiety disorder	3 (30)	37 (43.02)	40 (36.51)
Phobia Simple p	3 (30)	1 (1.16)	4 (15.58)
Obsessive compulsive disorder	0 (0)	15 (15.12)	13 (7.56)
Bipolar depression	1 (10)	3 (3.49)	4 (6.74)
Other anxiety disorder	1 (10)	14 (16.28)	15 (13.14)
Irritable bowel syndrome	0 (0)	1 (1.16)	1 (0.58)
Headache	0 (0)	5 (5.81)	5 (2.91)
Conversion disorder	1 (10)	1 (1.16)	2 (5.58)
Psychological stress	0 (0)	2 (2.33)	2 (1.16)

[a]Values are expressed as No. (%).

Table 3. Results of Personality Assessment by NEO-FFI, Compared Between Patients with and Without Agoraphobia by Student's t[a]

	Panic Disorder With Agoraphobia	Panic Disorder Without Agoraphobia	Total	P Value
Neuroticism	28 ± 6.43	27.29 ± 8.23	27.65 ± 7.33	0.38
Extraversion	25.40 ± 6.80	25.33 ± 6.47	25.37 ± 6.64	0.49
Openness	24.50 ± 5.84	24.62 ± 4.42	24.56 ± 5.13	0.48
Agreeableness	30.80 ± 5.87	30.01 ± 6.09	30.41 ± 5.98	0.35
Conscientiousness	30.80 ± 7.64	33.90 ± 6.84	32.35 ± 7.24	0.12

[a]Values are expressed as mean ± SD.

MDD is the most common psychiatric disorder in patients with PD, regardless of agoraphobia. Our results are also comparable with those of Powers et al. describing that MDD, dysthymia, GAD, and PTSD are common in patients with PD (1).

Personality traits of patients with PD have been evaluated by few studies resulting in discrepant conclusions. Our results were compatible with a report by Carrera et al. who showed that patients with PD score high in neuroticism (10). However, they also reported that patients with agoraphobia are more introverted, which was not replicated in our samples. This difference might be explained

Table 4. Results of Personality Assessment by Millon Clinical Multiaxial Inventory, Compared Between Patients with and Without Agoraphobia by Student's t[a]

	Panic Disorder With Agoraphobia	Panic Disorder Without Agoraphobia	Total	P Value
Disclosure	75.50 ± 6.35	73.73 ± 7.48	74.62 ± 6.92	0.21
Desirability	49.20 ± 22.09	53.60 ± 18.78	51.40 ± 20.44	0.28
Debasement	57.80 ± 22.65	51.20 ± 25.97	54.50 ± 24.31	0.20
Schizoid	45.70 ± 18.35	42.27 ± 21.78	43.99 ± 20.07	0.30
Avoidant	51.38 ± 17.84	41.63 ± 21.66	46.51 ± 19.75	0.07
Depressive	60.68 ± 28.95	58.73 ± 30.09	59.71 ± 29.52	0.42
Dependent	41.80 ± 20.76	39.85 ± 25.32	40.83 ± 23.04	0.39
Histrionic	49.20 ± 23.43	59.26 ± 30.29	54.23 ± 26.86	0.12
Narcissistic	28.50 ± 22.80	43.56 ± 23.42	36.03 ± 23.11	0.04
Antisocial	38.90 ± 16.58	36.06 ± 20.07	37.48 ± 18.33	0.31
Aggressive	37.60 ± 23.68	40.00 ± 19.22	38.80 ± 21.45	0.38
Compulsive	48.80 ± 26.29	54.17 ± 25.00	51.49 ± 25.65	0.28
Passive-aggressive	59.10 ± 24.10	51.40 ± 24.37	55.25 ± 24.24	0.18
Self-defeating	46.18 ± 15.38	39.70 ± 19.71	42.94 ± 17.55	0.12
Schizotypal	35.04 ± 16.62	37.09 ± 18.05	36.07 ± 17.34	0.36
Borderline	51.44 ± 10.04	41.52 ± 16.12	46.48 ± 13.08	0.01
Paranoid	44.50 ± 25.37	50.99 ± 17.11	47.75 ± 21.24	0.22
Anxiety	63.14 ± 16.92	52.19 ± 23.86	57.67 ± 20.39	0.04
Somatoform	45.74 ± 16.04	44.90 ± 18.83	45.32 ± 17.44	0.44
Manic	42.30 ± 28.07	35.44 ± 22.51	38.87 ± 25.29	0.24
Dysthymia	43.54 ± 20.14	44.23 ± 26.30	43.89 ± 23.22	0.46
Alcohol dependence	25.50 ± 13.01	20.90 ± 12.25	23.20 ± 12.63	0.15
Drug dependence	21.50 ± 14.30	20.26 ± 13.19	20.88 ± 13.75	0.40
Post-traumatic stress	48.90 ± 18.11	37.01 ± 25.11	42.96 ± 21.61	0.04
Thought disorder	52.10 ± 14.71	47.71 ± 22.08	49.91 ± 18.40	0.21
Major depression	47.10 ± 18.59	43.64 ± 22.33	45.37 ± 20.46	0.30
Delusional disorder	27.80 ± 18.10	36.36 ± 19.97	32.08 ± 18.79	0.09

[a]Values are expressed as mean ± SD.

by differences between study populations that have been noticed in several studies as well (11).

While higher scores of neuroticism in patients with PD seems a constant finding in different studies (12), there are different results about other domains of NEO. Bienvenu at al. described low trust (as a facet of agreeableness) in patients with agoraphobia (13). Although we did not measure facets of NEO, there was no difference between the groups regarding the score of agreeableness. These scores were comparable with those reported from the general population of our community (14).

Results of MCMI showed interesting differences among patients. Results of this study indicated higher score of borderline personality in patients with agoraphobia. Thus, the unstable sense of self in these patients might be a predisposing factor to experience agoraphobia. We also found higher scores of narcissistic personality in those without agoraphobia, thus, the inflated sense of their importance might have a protective role against agoraphobia. Though other studies do not support increased prevalence of personality disorders in patients with PD, these subclinical differences in personality and sense of self might specifically be related to the presence of agoraphobia (15) and not PD in general. In line with these results, Shedler et al. showed that borderline personality disorder is more frequent in patients with PD mostly with agoraphobia (16).

Finally, our data revealed that patients with PD have

a desire to speak about their psychological problems and have high tendency to self-disclosure. This can be a helpful sign for obtaining more information and encouraging cooperation in psychological interventions.

This study had some limitations. First of all, these patients were not drug-naive, and this might influence results of MCMI because it evaluates the present time. However, we also reported clinical diagnoses that included present and lifetime diagnoses, which could overcome this limitation. The subjects were recruited from a psychiatric clinic, thus, they might be different from those who are treated in primary care services in terms of severity and symptoms. Further studies using a healthy control group can be helpful to compare the results that were not intended in this study.

5.1. Conclusion

According to our study, comorbidity of PD with other psychiatric disorders is common, especially with MDD and GAD. Despite comparable scores of NEO between the groups with or without agoraphobia, they scored significantly different in MCMI for borderline and narcissistic personalities, anxiety, and PTSD.

Footnotes

Authors' Contribution: Asghar Arfaie and Ali Reza Shafiee-Kandjani designed the study and recruited the participants. Aydin Arfaie and Salman Safikhanlou implemented the procedures and gathered data. Hossein Dadashzadeh analyzed data and interpreted the results. Kowsar Tarvirdizade prepared the manuscript. All read and Ali Reza Shafiee-Kandjani finalized it.

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